Marine Corps Awards Contract for Lighter Body Armor System

MARINE CORPS BASE QUANTICO, Va.– Marine Corps Systems Command (MCSC) has awarded a contract to produce Plate Carrier Generation IIIs (PC Gen IIIs) – a move that will help Marines increase their mobility and keep them safe through training and deployments.

Vertical Protective Apparel, LLC, of Shrewsbury, New Jersey, was awarded a $62.6 million firm-fixed-price, indefinite-delivery/indefinite-quantity contract to produce and deliver the PC Gen IIIs. A maximum quantity of 225,886 will be delivered, and the work will be completed by September 2023.

The PC Gen III is a body armor system that provides increased mobility, improved fit, lighter weight and additional modularity to support various types of missions. Compared to the legacy system, the PC Gen III offers increased ballistic protection and will be available in eight sizes to allow for a more customized fit across the Marine Corps.

“The legacy carrier fit the span of the Marine Corps, but this new system is more tailorable to fit Marines of various sizes with three new smaller-stature options,” said Flora “Mackie” Jordan, body armor engineer for the Infantry Combat Equipment Team at MCSC. “We wanted to give as much mobility back to Marines as possible by reducing the weight and bulk of the vest without decreasing ballistic protection. We were able to reduce the weight of the vest by 25 percent.”

The goal was to lighten the load Marines carry to reduce fatigue and improve their operational capability in the field. A few new features of the PC Gen III contributed to the weight reduction.

Excess material was removed from the shoulders and about an

inch-and-a-half was taken from the bottom, which provides better integration with the USMC Pack. The team also chose a laminated laser cut material that only absorbs seven percent of water compared to 70 percent with the legacy system.

“We made sure to get the best system for our Marines, which included choosing the best lightweight soft armor and the best quality when it comes to the cut and sew of the carrier,” said Mackie.

While conducting research, MCSC discovered Marines are eight percent faster when the PC Gen III systems were combined with prototype lightweight plates, compared to the Enhanced Small Arms Protective Inserts. They also found Marines could remove and reassemble the vest in less than three seconds.

“With the old system, it took about seven seconds to take it off, and 10 minutes to reassemble,” said project officer Capt. Frank Coppola, who helped test the vests. “The new quick release works a hundred times better. It has a vastly improved quick detach system for Marines to act fast while on missions.”

The PC Gen III is less bulky and easier for Marines to move in, especially when working in tight spaces. An inner vest was also added to increase modularity of the system. Marines can adjust it to meet the requirements and environment of their particular mission.

“Our vests have come a long way over the past 15 years, and the reduced weight and increased mobility is huge,” Coppola said. “The fact that we can decrease the size of the vest and still be protected is the key.”

Infantry, school house, and Reconnaissance Marines, along with vehicle crewmen and combat engineers will receive the vests when fielding begins in the third quarter of fiscal year 2019.

Rising Accident Rates Taking Toll on Navy, Marine Aircraft Availability

RENO, Nev. – The accident rate for the major Class A mishaps in naval aviation is "trending up" and there has been a "major increase" in the more minor Class C accidents, which is aggravating the lack of aircraft availability the Navy and Marine Corps have been struggling to overcome, the Naval Safety Center commander reported.

The naval services are taking a series of steps to reverse the jump in Class C mishaps and aggressively working to develop better analytical tools to help prevent the major accidents, which result in the loss of aircraft or personnel or multi-million dollars in damage, Rear Adm. Mark Leavitt said Sept. 8.

Also, following a year-plus of multiple studies and corrective actions, naval aviation has made "good progress" in stopping the surprising increase in physiological episodes, or apparent shortage of oxygen in flight. "But it does remain our No. 1 safety concern," Rear Adm. F. R. "Lucky" Luchtman, the head of the recently created Physiological Episode Action Team, said at the same forum during the annual Tailhook Convention of aircraft carrier aviators.

Leavitt said the Class A accidents in naval aviation this year have "exceeded last year's numbers," with 14 mishaps. "The rate is trending up."

The Marines, however, "are doing much better this year, down to five" Class As, compared to 12 last year, he said.

Although some members of Congress have blamed the higher Class A rates to the age of aircraft and poor maintenance due to the budget reductions, Leavitt said the accident investigations are “still finding between 60 to 70 percent causal factors are human errors. We’ve not seen a spike of material problems.”

In the Class C mishaps, “this is not a good news story,” Leavitt said, but did not provide numbers for what he called a “major increases.”

Although the C mishaps inflict damages costing a comparatively low $50,000 to $500,000, they can take an aircraft out of service for months, which is aggravating the problems of too few available planes, he said.

Service studies have attributed the increase in the aviation version of fender benders to violations of established procedures by squadron maintenance personnel, which may reflect a lack of experience in the midgrade enlisted maintainers because of faster advancement in rank during a drive to keep more Sailors in service, he said.

The studies also indicate a “breakdown in team work,” which has led to efforts to get more “khaki leadership out on flight line, the flight deck,” Leavitt said, referring to chief petty officers and commissioned officers.

In an effort to reduce the major mishaps, Leavitt said the Safety Center has created a new office focusing on developing analytic tools to provide more data on causes and related factors, which can be shared with squadron commanders to help avoid accidents, he said.

The physiological episode team Luchtman leads is attacking the alarming number of incidents in which pilots in the F/A-18 Hornets and Super Hornets, EF-18G Growlers and the T-45 and T-6 training aircraft have reported in-flight conditions similar to hypoxia or oxygen shortage.

Luchtman said intensive studies by the Safety Center, NASA and others led to some modifications to the aircraft oxygen supply systems and indications that poorly fitted pilot's equipment cause some of the incidents.

They also are adding systems to the aircraft that can measure the quality of oxygen being provided to the pilots, he said and are seeking even better devices to monitor the oxygen flow. They are working with the Air Force and allies who fly similar aircraft and have had some of the same problems.

Marines Stage on Expeditionary Mobile Base Ship USS Puller for Real-World Operation

ARLINGTON, Va. — A Marine Air-Ground Task Force-Crisis Response (MAGTF-CR) has used a Navy expeditionary mobile base ship (ESB) for a quick-reaction movement in the Persian Gulf, the task force commander said.

Speaking June 8 to the Potomac Institute, Col. Christopher Gideons, commander of SPMAGTF-CR-Central Command from August 2017 to April, said that elements of the task force were called upon to stage to the United Arab Emirates in preparation for a maritime intercept operation (MIO) in the region.

After arrival, the task elements staged to the USS Lewis B. Puller, a newly commissioned ESB assigned to the U.S. Fifth Fleet that supports a variety of forces including mine

countermeasures forces, special operations forces, patrol boats and other units.

Gideons said MV-22B Osprey tiltrotor transport aircraft were staged to the flight deck of Puller along with an infantry contingent of about 200 Marines. The MIO of an unspecified nature was planned and rehearsed, he said, but ultimately the force was told to stand down when the MIO was canceled by higher authority.

“The team did a great job,” Gideons said.

He praised the capabilities of the ESB, with its large flight deck, spacious hangar deck and rotorcraft refueling capability.

One challenge of the operation was getting needed gear on the ship and sustaining the force, he noted.

The use of an alternate platform – the ESB – in this case was necessitated by the lack of an amphibious ready group (ARG) with an embarked Marine Expeditionary Unit (MEU), as pointed out during the presentation by retired Marine Corps Commandant Gen. Alfred M. Gray Jr., who also highlighted the shortage of amphibious warfare ships that necessitates the existence of SPMAGTFs.

There was a 100-day gap in the presence of an ARG/MEU when Gideons’ SPMAGTF was in theater, Gideons said.

The SPMAGTF also operated from the French Navy helicopter carrier FS Tonnere during the deployment.

The SPMAGTFs were created in 2014 in response to the 2012 attack on the U.S. government facilities in Benghazi, Libya, in which four Americans were killed in a siege with no ARG/MEU available in the Mediterranean Sea to rescue them.

Marine Corps to Award Orders for Cold Weather Boots and Socks

MARINE CORPS BASE QUANTICO, Va. – Marines will stay warm during ambient cold weather operations with new boots and socks. Marine Corps Systems Command (MCSC) intends to award sole source purchase orders for two types of Intense Cold Weather Boots (ICWBs) and Intense Cold Weather Socks (ICWSs) to improve Marines' performance in cold weather environments. A total of 2,000 boots and 50,000 pairs of socks will be delivered from four vendors by Sept. 28.

"Based on market research, industry days and events such as Modern Day Marine, we narrowed our decision for the orders down to two companies for cold weather boots and two for socks," said Todd Towles, program analyst for the Clothing and Equipment Team at MCSC.

There are currently no Marine Corps issue boots designed for use in the -20 to 20 degrees Fahrenheit range. The Temperate Weather Marine Corps Combat Boot was designed for a temperature range between 20 to 60 degrees Fahrenheit, and the Extreme Cold Weather Vapor Barrier Boot was designed for a range between -65 to -20 degrees Fahrenheit.

This effort to acquire the cold weather boots and socks will help MCSC evaluate commercial, off-the-shelf solutions and offer the potential to reduce or eliminate the current environmental protection gap, said Towles. The socks will have much higher wool content than the polypropylene wool socks Marines currently use. Additionally, the Clothing and

Equipment Team is hopeful the new gear will offer increased water repellency, comfort and insulation in extreme cold weather environments.

MCSC's Program Manager Infantry Combat Equipment will conduct a field user evaluation December through March. The team will gather input from Marines as they wear the ICWB and ICWS prototypes at the Mountain Warfare Training Center, Fort McCoy and Norway.

Feedback regarding fit, form and function will be collected along with how well both prototypes of the ICWB and ICWS perform in sub-zero temperatures.

"The Army is conducting evaluations with similar boots and socks, so there is potential to have some consistency with our results and products," said Lt. Col. Chris Madeline, program manager for ICE. "Marines will keep the prototype boots through the duration of testing. Once data is collected, it will inform future acquisition decisions and allow the Corps to purchase boots and socks that bridge the gap between the existing cold weather boots."

The Clothing and Equipment Team falls under Program Manager Infantry Combat Equipment at MCSC.